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10/550,607	11/29/2005	Thomas Grafenauer	P28533	4105
25570 7590 06/15/2010 ROBERT'S MLOTKOWSKI SAFRAN & COLE, P.C. Intellectual Property Department P.O. Box 10064 MCLEAN, VA 22102-8064				
EXAMINER PLUMMER, ELIZABETH A				
ART UNIT 3635		PAPER NUMBER		
NOTIFICATION DATE 06/15/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/550,607

**Applicant(s)**

GRAFENAUER ET AL.

**Examiner**

ELIZABETH A. PLUMMER

**Art Unit**

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4-24, 28-31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-24, 28-31 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's amendments and arguments received 02/25/2010 have been entered and considered. Claim 32 has been canceled. Claim 33 has been added.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5, 7, 8, 17, 20, 28, 30, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Brenneman (US Patent 3,627,362).

a. Regarding claim 1, Brenneman discloses: A device (20) for or capable of connecting and locking building boards comprising a top side and a bottom side, having a core made of wood material and provided with a groove on at least two opposite side edges, comprising an insert (20) intended for locking purposes, which insert can be inserted into the groove of one of the side edges, the boards being connected by substantially horizontal displacement one toward the other (Fig. 10), herein the insert is provided with one resilient lip (70,108) extending upward from a first side edge directed toward the top side of the insert (Fig. 5,10), and another resilient lip (76,108) extending downward from a second side edge directed toward the bottom side of the insert (Fig. 5,10), and wherein at least one of the one resilient lip and the another resilient lip compresses toward a center of the insert and then springs back out from the center of the insert when

the boards are connected by the substantially horizontal displacement (Fig. 5,10), and: the insert comprises: a first upward facing surface (Fig. 5,10) a second upward facing surface connected to, and vertically offset from, the first upward facing surface by a first step (78,105), a first downward facing surface (Fig. 5,10); a second downward facing surface connected to, and vertically offset from, the first downward facing surface by a second step (other side of 78,105): the first side edge comprises the second upward facing surface and the first downward facing surface; the second side edge comprises the first upward facing surface and the second downward facing surface; the one resilient lip extends upward from the second upward facing surface: and the another resilient lip extends downward from the second downward facing surface (Fig. 5,10).

b. Regarding claim 2, the one and another resilient lips are directed in opposite directions (Fig. 5,10).

c. Regarding claim 5, the insert can be plastic (column 1, line 70; column 3, lines 55-59).

d. Regarding claim 7, the insert has midway between the one and another resilient lips a projection which rests on a shoulder, running parallel (along its length) to the bottom side of the bottom lip of the groove (Fig. 10).

e. Regarding claim 8, when the building boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core material of the boards.

- f. Regarding claim 17, claim 17 is a product by process claim. The patentability of a product does not depend on its method of production. The insert is inserted into a groove (Fig. 10), and the final product does not vary regardless of whether or not the insert is inserted at a factory site.
- g. Regarding claim 20, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In this case, the board has grooves (Fig. 10).
- h. Regarding claim 28, the one resilient lip extending upward from the first side edge is the only lip that extends upward from the first side edge (Fig. 10), and the another resilient lip extending downward from the second side edge is the only lip that extends downward from the second side edge (Fig. 10).
- i. Regarding claim 30, the one resilient lip is the only lip that extends from the first side edge, and the another resilient lip is the only lip that extends from the second side edge (Fig. 10).
- j. Regarding claim 33, Brenneman discloses: A device for connecting and locking first and second building boards, the first and second building boards comprising respective grooves into which the device is configured to be inserted for the connecting and locking, the first and second building boards being connected by substantially horizontal displacement one toward the other, the device (20) comprising: a first upward facing surface; a second upward facing

surface connected to, and vertically offset from, the first upward facing surface by a first step; a first downward facing surface; a second downward facing surface connected to, and vertically offset from, the first downward facing surface by a second step (Fig. 10), a resilient lip (108) extending upward from the second upward facing surface; and another resilient lip (108) extending downward from the second downward facing surface, wherein at least one of the resilient lip and the another resilient lip compresses toward a center of the device and then springs back out from the center of the device when the boards are connected by the substantially horizontal displacement (Fig. 5,10); and horizontal locking of the boards is effectuated by respective tips of the resilient lip and the another resilient lip resting against respective edges of the respective grooves (Fig. 10).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 9-12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brenneman (US Patent 3,627,362).
- a. Regarding claims 4 and 9, Brenneman discloses a tip running from the top side to the bottom side for locking which cooperates with a running edge of a groove. Brenneman does not disclose the tip and the groove run obliquely between 90 and 135 degrees. However, it would have been a matter of obvious

design choice to form the tip and groove as running obliquely, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966).

b. Regarding claims 10-12, Brenneman discloses the invention as claimed except for specifying the thickness of the insert, the depth of penetration of the groove, or the flexural modulus of the plastic. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a structure within the claimed range, as it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

c. Regarding claim 14-16, Brenneman discloses the invention as claimed except for the side edges of the insert being tapered, rounded or conical. However, it would have been a matter of obvious design choice to form the side edges as tapered, rounded or conical,, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966).

d. Regarding claims 18 and 19, Brenneman does not disclose that their specific embodiment is permanently connected to the groove of one of the sides edges or that the insert is glued in place. However, Brenneman teaches that is it

notoriously well known in the art that splines can be glued for permanency (column 1, lines 15-40). It would have been a matter of obvious design choice for one of ordinary skill in the art to modify Brenneman to glue the insert in place, such as taught in the background of Brenneman, in order to make the connection more lasting.

e. Regarding claim 21, the one resilient lip extends from the first side edge toward a center of the insert, and the another resilient lip extends from the second side edge toward the center of the insert. Brenneman does not disclose that the length of the one lip is greater than half the distance between the first side edge and the center of the insert and that the length of the another lip is greater than half the distance between the second side edge and the center of the insert. However, it would have been a matter of obvious design choice to make the lips a longer length such that the length is greater than half the distance between the side edges and the center of the insert, as such a modification would have involved a mere change in size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

f. Regarding claim 22, Brenneman discloses each of the one and another resilient lips includes a fixed end attached to a body of the insert (Fig. 5,10), a free end opposite the fixed end and a tip at the free end, which, for locking, is structured and arranged to cooperate with a running edge of the building board (Fig. 10). Brennamen does not disclose the tip and the groove run obliquely



However, it would have been a matter of obvious design choice to form the tip and groove as running obliquely, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966).

g. Regarding claim 23, the insert comprises an upper surface step-shaped profile that allows the first resilient lip to be compressed and a lower surface step-shaped profile that allows the second resilient lip to be compressed (Fig. 5,10).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brennenman (US Patent 3,627,362) in view of Riedi (US Patent 2,863,185).

Regarding claim 6, Brennenman discloses the invention as claimed except for the insert having at least one cavity. However, it is notoriously well known in the art that inserts can comprise a cavity. For example, Riedi teaches an insert (10) for connecting and locking boards (16), wherein the insert comprises at least one cavity (Fig. 1,2,3,4) in order to more easily deform to fit inside the grooves of the board. It would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify Brenneman to include at least one cavity, such as taught by Riedi, in order to make the device easier to install.

7. Claims 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brenneman (US Patent 3,627,362) in view of Martensson (US Patent 6,763,643).

a. Regarding claim 13, while Brenneman does not disclose the particulars of what type of board the device is used in combination with, it is well known in the art that boards that use splines can further comprise on one side edge a tongue pointing substantially in the transverse direction and on the other side edge a groove corresponding thereto. For example, Martensson teaches a board with an insert device wherein when the boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core made of wood material of the boards (Fig. 7b,7c) and the board is provided on one side edge with a tongue pointing substantially in the transverse direction and on the other side edge with a groove corresponding thereto. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brenneman to use boards comprising on one side edge a tongue pointing substantially in the transverse direction and on the other side edge a groove corresponding thereto, such as taught by Martensson, in order to better stabilize the boards.

b. Regarding claim 24, Brenneman discloses that when the building boards are mutually connected the insert is essentially fully surrounded in its peripheral contour by the core material of the building boards, and an upper surface of the

insert abuts a lip of one of the building boards (Fig. 10). While Brennamen does not disclose the particulars of what type of board the device is used in combination with, it is well known in the art that boards that use insert devices can comprise a lip defining a groove that receives a tongue of another one of the building boards. For example, Martensson teaches a board with an insert device wherein when the boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core made of wood material of the boards (Fig. 7b,7c) and the board comprises a lip defining a groove that receives a tongue of another one of the building boards. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brennamen to use boards comprising a lip defining a groove that receives a tongue of another one of the building boards, such as taught by Martensson, in order to better stabilize the boards.

8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brennenman (US Patent 3,627,362) in view of Riedi (US Patent 2,863,185) and Martensson (US Patent 6,763,643).

Regarding claim 29, Brennenman discloses each resilient lip has a tip running to the top side and bottom side, the tip, for locking, cooperates with a running edge, when the boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core made of wood material of the boards (Fig. 10). Brennenman does not disclose the insert having at least one cavity. However, it is notoriously well known in the art that inserts can comprise

a cavity. For example, Riedi teaches an insert (10) for connecting and locking boards (16), wherein the insert comprises at least one cavity (Fig. 1,2,3,4) in order to more easily deform to fit inside the grooves of the board. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brennenman to include at least one cavity, such as taught by Riedi, in order to make the device easier to install. Brennenman also does not disclose the tip and the groove run obliquely. However, it would have been a matter of obvious design choice to form the tip and groove as running obliquely, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1966). Also, while Brennenman does not disclose the particulars of what type of board the device is used in combination with, it is well known in the art that boards that use splines can further comprise on one side edge a tongue pointing substantially in the transverse direction and on the other side edge a groove corresponding thereto. For example, Martensson teaches a board with an insert device wherein when the boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core made of wood material of the boards (Fig. 7b,7c) and the board is provided on one side edge with a tongue pointing substantially in the transverse direction and on the other side edge with a groove corresponding thereto. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brennenman to use boards

comprising on one side edge a tongue pointing substantially in the transverse direction and on the other side edge a groove corresponding thereto, such as taught by Martensson, in order to better stabilize the boards.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1, 2, 4-24, 28-31 and 33 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH A. PLUMMER whose telephone number is (571)272-2246. The examiner can normally be reached on Monday through Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/  
Primary Examiner, Art Unit 3633

/E. A. P./

Examiner, Art Unit 3635